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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/601,875	10/12/2000	Michifumi Tanga	TANGA2	5274
1444	7590	08/09/2004	EXAMINER	
BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303			FORMAN, BETTY J	
			ART UNIT	PAPER NUMBER
			1634	

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/601,875	TANGA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	BJ Forman	1634	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,7-10,12-16,22-24 and 26-42 is/are pending in the application.
- 4a) Of the above claim(s) 12 and 26-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,7-10,13-16,22-24 and 39-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Status of the Claims***

1. This action is in response to papers filed 17 June 2004 in which claims 1, 13, 16 and 42 were amended. The amendments have been thoroughly reviewed and entered.

The previous rejections in the Office Action dated 31 March 2004 under 35 U.S.C. 112, first paragraph are withdrawn in view of the amendments. The previous rejections under 35 U.S.C. 102(b)/103(a) are maintained. All of the arguments have been thoroughly reviewed and are discussed below.

This action is made non-final merely to include new grounds of rejection under obviousness-type double patenting. New grounds for rejection are discussed.

Claims 1, 2, 7-10, 13-16, 22-24 and 39-42 are under prosecution.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 2, 7-10, 13-16, 22-24 and 39-42 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: steps of DNA immobilization. The claims are drawn to a product-by-process, the product being a substrate having DNA immobilized thereon. However, the process steps do not include steps of immobilizing DNA. Hence, it is unclear how the DNA is immobilized to provide the claimed product.

***Claim Rejections - 35 USC § 102/103***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 11, 13-16 and 25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chrisey et al (U.S. Patent No. 5,688,642, issued 18 November 1997) as defined by Sumiya et al (U.S. Patent No. 5,332,629, issued 26 July 1994).

Regarding Claim 1, Chrisey et al teach a solid state substrate for DNA immobilization (i.e. diamond) (Column 7, lines 24-28), wherein said substrate has a thermal conductivity ration of at least 0.1W/cm ° K as defined by Sumiya et al (Column 1, Table 1) wherein the surface of the substrate is modified by binding a chloride or hydroxyl radical (Column 7, lines 35-50) and wherein said substrate is used for immobilizing and amplifying DNA (Column 9, lines 22-27) wherein the substrate has a polar radical at a terminal on the surface of the

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substrate (Column 7, lines 35-50 and Fig. 4-5) and wherein said polar radical is hydroxyl radical, epoxy radical or amino radical (Column 7, lines 35-50).

Furthermore, Chrisey et al teach the substrate wherein the radical is coupled to the substrate through a hydroxyl group having 1-10 carbons (Column 7, lines 2-14 and Fig. 5). While they illustrate an amino radical, they teach the terminal radical is a carboxyl (Column 7, lines 2-14 and 35-50).

The recitation "for amplifying DNA" in the preamble of Claim 1 and the recitation "for amplifying and immobilizing DNA" in lines 3-4 of Claim 1 are recitations of intended use for the claimed substrate. The courts have stated that a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). The intended use of the claimed substrate does not differentiate the claimed apparatus over the substrate of Chrisey et al.

The claim further recites the method steps by which the substrate is made. However, the courts have stated, "even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) see MPEP 2113.

"The Patent Office bears a lesser burden of proof in making out a case of *prima facie* obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence

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establishing an unobvious difference between the claimed product and the prior art product. In *re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983) (The claims were directed to a zeolite manufactured by mixing together various inorganic materials in solution and heating the resultant gel to form a crystalline metal silicate essentially free of alkali metal. The prior art described a process of making a zeolite, which, after ion exchange to remove alkali metal, appeared to be “essentially free of alkali metal.” The court upheld the rejection because the applicant had not come forward with any evidence that the prior art was not “essentially free of alkali metal” and therefore a different and unobvious product.).

“[T]he lack of physical description in a product-by-process claim makes determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not of the recited process steps which must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith.” In *re Brown*, 459 F.2d 531, 535.

In the instant case, the substrate of *Chrissey et al* provides the polar radical at the substrate surface as claimed (Fig.5). Therefore, because *Chrissey et al* disclose the structural components of the substrate that define the claimed substrate (product), the instantly claimed is the same as that of *Chrissey et al*.

The burden is on Applicant to show that the instantly claimed substrate is structurally either different from or non-obvious over that of *Chrissey*. It is suggested that Applicant provide factual evidence to support an allegation of non-anticipation or non-obviousness.

Regarding Claim 11, *Chrissey et al* teach said chip wherein DNA is immobilized to said substrate (Column 3, lines 20-25 and Column 7, lines 21-28).

Regarding Claim 13, *Chrissey et al* teach a solid state substrate having DNA immobilized thereon wherein said substrate is diamond and is chemically modified by binding a chloride or hydroxyl radical (Column 7, lines 21-50) and wherein said substrate is used for immobilizing and amplifying DNA (Column 9, lines 22-27).

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Furthermore, Chrisey et al teach the substrate wherein the radical is coupled to the substrate through a hydrocarbon having 1-10 carbons (Column 7, lines 2-14 and Fig. 5). While they illustrate an amino radical, they teach the terminal radical is a carboxyl (Column 7, lines 2-14 and 35-50).

Regarding Claim 14, Chrisey et al teach said substrate having DNA immobilized thereon wherein said substrate has a polar radical at a terminal of the surface of the substrate (Column 7, lines 41-50).

Regarding Claim 15, Chrisey et al teach said substrate wherein said polar radical is hydroxyl radical, epoxy radical or amino radical (Column 7, lines 35-50).

Regarding Claim 16, Chrisey et al teach their chip is for amplifying and immobilizing DNA (Column 9, lines 9-27).

The recitation “for amplifying and immobilizing DNA” is functional language and does not describe the claimed substrate in terms of structure. The courts have stated that claims drawn to an apparatus must be distinguished from the prior art in terms of structure rather than function see *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA1959). “[A]pparatus claims cover what a device is, not what a device does.” *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525,1528 (Fed. Cir. 1990) (see MPEP, 2114). Because “for amplifying and immobilizing DNA” does not describe structural components of the claimed substrate, the recitation does not distinguish the substrate over the prior art substrate.

Regarding Claim 25, Chrisey et al teach the substrate of Claim 15 wherein said polar radical is an epoxy radical and said epoxy radical is introduced to a surface of said substrate with a silane coupling agent (Column 7, lines 41-43).

### ***Response to Arguments***

7. Applicant asserts that the instantly claimed substrate produced using the chloridizing step produces a substrate in which the peak strength of the hydroxyl radical is increased as

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detailed in Table 4 of the specification. Applicant's assertion is acknowledged. However, the process represented by the details of Table 4 differs from the claimed process because the detailed process requires sebacic soda treatment. The instant claims do not require sebacic soda. Hence, the argument is not commensurate in scope with the claims.

Applicant appears to be arguing that the instant invention provides unexpected results i.e. increased peak strength. However, Applicant has not provided evidence of unexpected results such as a comparison of the peak strength from the instantly claimed substrate to that from the substrate of Chrisey.

Applicant argues that, in contrast to the instant invention, the process of Chrisey et al uses organosilane coupling. Applicant asserts that the chloridation step produces a substrate to which the carboxyl radicals are closely bound while the process of Chrisey provides a silane coupling group bound to a hydroxyl. The arguments have been considered but are not found persuasive. The instant claims are drawn to carboxyl radicals with a hydroxyl group and 1 to 10 carbons. The open claim language encompasses a silane coupling agent as taught by Chrisey et al.

Applicant further argues that in contrast to Chrisey, the only coupling agents instantly claimed are titanium or aluminum. The argument has been considered but is not found persuasive because the above rejected claims are not limited to titanium and aluminum coupling agents. Hence, the argument is not commensurate in scope with the rejected claims.

Applicants are advised that arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965) (see MPEP 716.01(c)).



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8. Claims 42, 9 and 10 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Santo et al (U.S. Patent No. 5,965,252, issued 12 October 1999).

Regarding Claim 42, 9 and 10, Santo et al disclose a substrate having a surface modified to contain a polar radical containing a hydrocarbon chain and a polar groups selected from epoxy and amino wherein the radical is connect through a titanium or aluminum coupling agent (Column 4, lines 30-32 and 46-53).

#### **Response to Arguments**

9. Applicant argues that the instantly claimed substrate has DNA immobilized thereon and therefore differs from that of Santo et al. The argument has been considered. However, the rejection is maintained because while the preamble of the instant claim recites "having DNA immobilized thereon", the claim is drawn to a product-by-process and the process for making the substrate does not recite process steps of immobilizing DNA.

It is noted that In re Best (195 USPQ 430) and In re Fitzgerald (205 USPQ 594) discuss the support of rejections wherein the prior art discloses subject matter in which there is reason to believe inherently includes functions that are newly cited or is identical to a product instantly claimed. In such a situation the burden is shifted to the applicants to "prove that subject matter shown to be in the prior art does not possess characteristic relied on" (205 USPQ 594, second column, first full paragraph).

#### ***Claim Rejections - 35 USC § 103***

10. Claims 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chrissey et al (U.S. Patent No. 5,688,642, issued 18 November 1997) as defined by Sumiya et al (U.S.

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Patent No. 5,332,629, issued 26 July 1994) in view of Fodor et al (U.S. Patent No. 5,800,992, issued 1 September 1998).

Regarding Claims 39-41, Chrisey et al teach a solid state substrate for DNA immobilization (i.e. diamond) (Column 7, lines 24-28), wherein said substrate has a thermal conductivity ration of at least  $0.1\text{W}/\text{cm}^{\circ}\text{K}$  as defined by Sumiya et al (Column 1, Table 1) wherein the surface of the substrate is modified by binding a chloride or hydroxyl radical (Column 7, lines 35-50) and wherein said substrate is used for immobilizing and amplifying DNA (Column 9, lines 22-27) wherein the substrate has a polar radical at a terminal on the surface of the substrate (Column 7, lines 35-50 and Fig. 4-5) and wherein said polar radical is hydroxyl radical, epoxy radical or amino radical (Column 7, lines 35-50).

Chrisey et al do not teach the surface of the substrate is roughened. However, substrates having a roughened surface were well known in the art at the time the claimed invention was made as taught by Fodor et al (Column 37, line 65-Column 38, line 6). Specifically, Fodor et al teach a similar substrate for DNA immobilization wherein the substrate is modified by binding a hydroxyl radical (Column 37, lines 42-64 and Columns 43-44) and wherein the surface of the substrate is roughened (i.e. machined or etched) thereby increasing the surface area and increasing the density of reagent attachment (Column 37, line 65-Column 38, line 6). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the substrate surface of Chrisey et al by roughening the surface as taught by Fodor et al to thereby increase surface area of the substrate for the obvious benefits of increasing the density of reagent attachment and reagent-binding as taught by Fodor et al (Column 37, line 65-Column 38, line 6).

#### **Response to Arguments**

11. Applicant argues that Fodor et al adds nothing to cure the deficiencies of Chrisey. The arguments have been considered but are not found persuasive for the reasons stated above regarding Chrisey.

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12. Claims 2, 7, 8 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chrissey et al (U.S. Patent No. 5,688,642, issued 18 November 1997) in view of Kobashi (U.S. Patent No. 5,77,372, issued 7 July 1998).

Regarding Claims 2, 7, 8 and 22-24, Chrissey et al teach a solid state substrate for DNA immobilization (i.e. diamond) (Column 7, lines 24-28), wherein said substrate has a thermal conductivity ration of at least 0.1W/cm ° K as defined by Sumiya et al (Column 1, Table 1) wherein said substrate is used for immobilizing and amplifying DNA (Column 9, lines 22-27) wherein said substrate is diamond (Column 7, lines 24-28) wherein said substrate is chemically modified by binding a hydroxyl radical to the substrate (Column 7, lines 41-50) wherein said substrate has a polar radical at a terminal on the surface of the substrate (Column 7, lines 35-50 and Fig. 4-5) and wherein said polar radical is hydroxyl radical, epoxy radical or amino radical wherein the polar radical is connected on a surface through an ester linkage, an amide linkage or introduced with a silane coupling agent (Column 7, lines 35-50). Chrissey et al do not teach said polar radical is a carboxyl radical. However, Kobashi teaches a similar a solid state substrate wherein said substrate is chemically modified to have a polar radical at a terminal wherein the polar radical is selected from the group consisting of hydroxyl, carboxyl, epoxy and amino (Column 10, line 63-Column 11, line 11). It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the chemical modification of substrates as taught by Chrissey et al by chemically modifying with a carboxyl radical as taught by Kobashi based on the teaching of Kobashi wherein hydroxyl, carboxyl, epoxy and amino radicals function equally as chemical modifiers for diamond surfaces (Column 11, lines 4-11). The courts have stated with regard to chemical homologs that the greater the physical and chemical similarities between the claimed species and any species disclosed in the prior art, the greater the expectation that the claimed subject matter will function in an equivalent manner (see *Dillon*, 99 F.2d at 696, 16 USPQ2d at 1904). Therefore, one of skill in the art would be motivated to chemically modify the substrate of

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Chrissey et al with a carboxyl radical based on the similar chemical and physical properties of polar radicals taught by Kobashi (Column 10, line 63-Column 11, line 11) because one skilled in the art would have expected the carboxyl radical to function in an equivalent manner.

Additionally, the skilled practitioner would have been motivated to modify the diamond substrate of Chrissey et al with a carboxyl radical based on the teaching of Kobashi wherein a biomolecule is immobilized via carboxyl radical-modification of diamond substrate (Kobashi, Column 10, line 63-Column 11, line 11).

### ***Response to Arguments***

13. Applicant argues that Kobashi et al adds nothing to Chrissey. The argument has been considered but is not found persuasive for the reasons stated above regarding Chrissey.

### ***Double Patenting***

14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Claims 1, 2, 7-10, 13-16, 22-24 and 39-42 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,607,908. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to a substrate for immobilizing DNA. Both sets of claims are product-by-process claims and the process recited in both sets produce

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substrates having carboxyl radicals and hydroxyl groups. The claims differ only in the instant claims produce a substrate having 1 to 10 carbon atoms. However, the patent specification defines the patent carboxyl as having 1 to 10 carbon atoms (Column 2, lines 33-35). Hence, the patent substrates are not patentably distinct from those instantly claimed.

### **Conclusion**

16. No claim is allowed.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BJ Forman whose telephone number is (571) 272-0741. The examiner can normally be reached on 6:00 TO 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on (571) 272-0782. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

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For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.



BJ Forman, Ph.D.  
Primary Examiner  
Art Unit: 1634  
August 5, 2004